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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kim A. Reynolds, et al.

Application No.: 09/066,513

Examiner: S. Nolan

Filed: April 24, 1998

Group Art Unit: 1721

For: **ABRASION RESISTANT MULTI-WALL ARTICLE AND METHOD OF MAKING SAME**

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC 20231, on September 24, 2001.

September 24, 2001  
Date

Wendy H. Lord  
Wendy H. Lord

Commissioner for Patents  
Washington, DC 20231

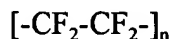
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**DECLARATION OF DR. CHARLES MARINO**

I, Dr. Charles Marino, hereby declare as follows:

1. I am the Vice President of Technology at Markel Corporation. I have been employed by Markel for the past 21 years.
2. I received my B.S. in Chemistry from Drexel University in 1968 and my Ph.D. in Physical Chemistry from the University of Pennsylvania in 1973.
3. I have been working in the field of PTFE processing my entire time at Markel and am intimately familiar with the state of the art.
4. I am intimately familiar with the subject matter of the above captioned patent application, including the detailed description contained in the specification and the claims.

5. I am aware that the application describes use of a material referred to "polytetrafluoroethylene" and the claims that specify the use of this material.
6. It is well known to those skilled in the polymer art that "polytetrafluoroethylene," which is referred to as PTFE, generally describes a substantially homopolymeric material consisting essentially of the following repeating units:



The term PTFE is also sometimes used in the art to describe slightly modified PTFE polymers which consist essentially of PTFE but which also include relatively small amounts (approximately 0.5 % or less by weight) of other fluoromonomers. In all cases, however, PTFE describes a polymer that is not melt processable.

7. I am also aware that the Examiner has rejected the pending claims in the above captioned application on the grounds that U.S. Patent 5,922,425 - Gruel "teaches PTFE with fluoropolymers in multilayer articles," citing col. 2, line 31.
8. The Gruel patent does not describe or disclose the use of PTFE polymer at col. 2, line 31 or anywhere else. Gruel describes the first layer of a multilayer composition as comprising:

"...semi-crystalline copolymer comprising  
interpolymerized units derived from  
tetrafluoroethylene (TFE) and allylic hydrogen-  
containing olefin monomer (e.g., propylene),

wherein less than 10% (preferably less than 5%)  
of the total heat of fusion is attributable to a  
secondary melt-transition above 300 °C as  
shown by the heating curve from Differential  
Scanning Calorimetry (DSC);..."

9. This first layer material is not and can not be PTFE. Figure 1 of Gruel discloses that this material has a first melt transition temperature of about 154°C and second melt transition temperature of about 300 °C. PTFE has a single melt point more than 100 C above the initial melt point of the Gruel material. Such a material as described by Gueul is not PTFE. The first layer material will not consist essentially of the PTFE repeating units as described above. Thus, the first layer material is not PTFE and is not even remotely similar in properties to PTFE.
10. Gruel describes the second layer of the multilayer composition as comprising:  
    "...comprising melt-processable polymer (e.g.,  
    polyethylene) which is both substantially  
    thermally stable and capable of being melt-  
    processed at temperatures below the  
    decomposition temperature of the semi-  
    crystalline copolymer."
11. This second layer material also is not and can not be PTFE. PTFE is not melt processable. Thus, the second layer material is not PTFE and is not even

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remotely similar in properties to PTFE.

12. I declare under penalty of perjury that the above is true and correct to the best of my knowledge.

Sept. 24, 2001  
Date

Dr. Charles Marino  
Dr. Charles Marino